

Appln No. 09/892,010

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Reply to Office action of April 15, 2005

REMARKS/ARGUMENTS

Claims 1, 3-11, 13-19, 21-30, 32 and 34-38 are now in the application. Claim 33 has been cancelled herein without prejudice. Claims 1, 4-8, 11, 13-17, 19, 22-26, 28-30, 32 and 34-37 have been amended. Applicant respectfully requests reconsideration, reexamination and allowance of the application in view of the present amendment and the following remarks.

The Examiner has again rejected claims 1, 3-11, 13-19, 21-30, 32 and 34-38 under 35 U.S.C. §103(a) as allegedly being unpatentable over Radha et al. (U.S. Patent No. 6,639,943 B1) in view of Tan et al. (U.S. Patent No. 6,542,549 B1). These rejections are respectfully traversed.

Claim 1 recites, among other features, "generating a base bitstream comprising one or more base video object planes (VOPs)..., each base VOP being associated with a base presentation time stamp (PTS) and a base decoding time stamp (DTS)" and "generating a first enhancement bitstream comprising one or more first enhancement VOPs..., each first enhancement VOP being associated with...a first DTS and a first PTS." Claim 1 further recites that "the first DTS and the first PTS associated with each first enhancement VOP are selected to be equal to one another, the first PTS associated with each first enhancement VOP is selected to be equal to the base PTS associated with its corresponding base VOP, and the first DTS associated with each first enhancement VOP is selected to be equal to the base DTS associated with one of the base VOPs." Claim 1 also recites, among other features, "generating a second

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enhancement bitstream comprising one or more second enhancement VOPs using the video stream, wherein each second enhancement VOP is associated with ... a second DTS and a second PTS." Claim 1 further recites that "the second DTS and the second PTS associated with each second enhancement VOP are selected to be equal to one another."

As such, Applicant submits that claim 1 is patentable over Radha in view of Tan. Specifically, Tan does not teach that "the first DTS and the first PTS associated with each first enhancement VOP are selected to be equal to one another, the first PTS associated with each first enhancement VOP is selected to be equal to the base PTS associated with its corresponding base VOP, and the first DTS associated with each first enhancement VOP is selected to be equal to the base DTS associated with one of the base VOPs." Further, Tan does not teach that "the second DTS and the second PTS associated with each second enhancement VOP are selected to be equal to one another." In paragraph 1 on page 3 of the Office action, the Examiner has alleged that Tan discloses selecting the DTS and the PTS associated with a same given VOP to be equal to one another. In so alleging, the Examiner points to P-VOP3 in Tan's Fig. 6 in which, as noted by the Examiner, "DTS₃" is shown as being equal to "PTS₂." Applicant respectfully disagrees and submits that DTS₃ and PTS₂ are associated with different VOPs: DTS₃ is associated with P-VOP 3, and PTS₂ is associated with B-VOP 2. The DTS and the PTS associated with B-VOP 2 are shown as "DTS₂" and "PTS₂" in Fig. 6. As shown in that figure, DTS₂ is not equal to PTS₂. While DTS₃ is shown as being equal to PTS₂,

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DTS₃, as explained previously, is associated with P-VOP 3 and not with B-VOP 2. Thus, Tan does not disclose selecting the DTS and the PTS associated with B-VOP 2 to be equal to one another.

Alleging that Tan does disclose this feature, also in paragraph 1 on page 3 of the Office action, the Examiner has pointed to the rightmost example in Tan's Fig. 6 in which it is believed that the Examiner intended to note that "DTS₅" is shown as being equal to "PTS₄." Applicant respectfully disagrees and submits that DTS₅ and PTS₄ are associated with different VOPs: DTS₅ is associated with a VOP not shown in the figure, and PTS₄ corresponds to B-VOP 4. The DTS and the PTS associated with B-VOP 4 are shown as "DTS₄" and "PTS₄" in Fig. 6. As shown in that figure, DTS₄ is not equal to PTS₄. While DTS₅ is shown as being equal to PTS₄, DTS₅, as explained previously, is associated with a VOP not shown in the figure and not with B-VOP 4. Thus, Tan does not disclose selecting the DTS and the PTS associated with B-VOP 4 to be equal to one another.

For at least the reasons stated above, Tan does not teach the noted recitations in claim 1. Because Radha does not even teach time stamping, Radha does not supply the features that are missing from Tan. As such, it is respectfully submitted that a *prima facie* case of obviousness under the provisions of 35 U.S.C. §103 has not been made out and that, therefore, claim 1 is patentable over the cited references.

Moreover, Radha does not provide motivation to modify the teachings contained within the four corners of that patent to arrive at Applicant's claimed recitations. In alleging in paragraph 1 on page 2 of the Office action that it would have

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been obvious to one of ordinary skill in the art to combine the cited references to arrive at Applicant's recitations, the Examiner has cited several portions in Radha. These portions allegedly describe the changing of the encoder such that a lower complexity is reached. Applicant submits that each of the cited portions describes features radically different from associating VOPs with presentation time stamps and decoding time stamps. First, col. 4, lines 42-52 in Radha disclose generating different frame types and combinations of different frame types. This feature is significantly different from associating those frames with PTSs and DTSSs. Next, col. 4, lines 36-45 in Radha refer to Fig. 7, which depicts a configuration in which the flow of data can be directed so as to control the frame types that are generated by the encoder (Radha, col. 7, line 67 to col. 8, line 2). This feature of directing data flow is also significantly different from associating VOPs with PTSs and DTSSs. Lastly, col. 11, lines 9-23 in Radha describe sharing structural elements within a decoder to reduce complexity of the decoder. This feature of modifying a decoder is distinct from that of associating VOPs with PTSs and DTSSs at the encoder. Thus, each of the examples cited by the Examiner fails to describe or suggest a feature even remotely similar to that of associating VOPs with PTSs and DTSSs. At least for the reasons stated above, it would not have been obvious to combine the cited references to arrive at Applicant's recitations.

Claims 1 and 4-8 have been amended to improve readability thereof. At least by virtue of their dependency from claim 1,

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been obvious to one of ordinary skill in the art to combine the cited references to arrive at Applicant's recitations, the Examiner has cited several portions in Radha. These portions allegedly describe the changing of the encoder such that a lower complexity is reached. Applicant submits that each of the cited portions describes features radically different from associating VOPs with presentation time stamps and decoding time stamps. First, col. 4, lines 42-52 in Radha disclose generating different frame types and combinations of different frame types. This feature is significantly different from associating those frames with PTSs and DTSs. Next, col. 7, lines 36-45 in Radha refer to Fig. 7, which depicts a configuration in which the flow of data can be directed so as to control the frame types that are generated by the encoder (Radha, col. 7, line 67 to col. 8, line 2). This feature of directing data flow is also significantly different from associating VOPs with PTSs and DTSs. Lastly, col. 11, lines 9-23 in Radha describe sharing structural elements within a decoder to reduce complexity of the decoder. This feature of modifying a decoder is distinct from that of associating VOPs with PTSs and DTSs at the encoder. Thus, each of the examples cited by the Examiner fails to describe or suggest a feature even remotely similar to that of associating VOPs with PTSs and DTSs. At least for the reasons stated above, it would not have been obvious to combine the cited references to arrive at Applicant's recitations.

Claims 1 and 4-8 have been amended to improve readability thereof. At least by virtue of their dependency from claim 1,

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it is believed that claims 3-10 are patentable over the cited references.

At least for the reasons stated with respect to claim 1, it is also believed that independent claim 19 is patentable over the cited references. Moreover, for reasons previously explained with respect to claim 1, it also would not have been obvious to combine the cited references to arrive at Applicant's recitations in claim 19.

Claims 19, 22-26 and 28-29 have been amended to improve readability thereof. At least by virtue of their dependency from claim 19, it is believed that claims 21-29 are patentable over the cited references.

With respect to independent claims 11 and 30, Applicant has amended both claims to further distinguish these claims over the cited references and to place them in condition for allowance. Each of claims 11 and 30 has been amended to recite subject matter previously presented in claim 33, which is cancelled herein without prejudice. As such, claims 11 and 30 do not recite new subject matter, and Applicant does not believe a new search is required. Specifically, each of claims 11 and 30 has been amended to recite that "not more than a total of three frame buffers are used simultaneously for decoding the base bitstream, the first enhancement bitstream and the second enhancement bitstream and presenting the decoded bitstreams."

Tan does not disclose the noted recitations of claims 11 and 30. Specifically, Tan does not teach that "not more than a total of three frame buffers are used simultaneously." Rather, Tan discloses only that a buffer memory size may be

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predetermined (Tan, col. 8, lines 33-37). However, Tan does not disclose limiting the buffer memory size to "not more than a total of three frame buffers." Radha also does not supply the noted features that are missing from Tan. As such, it is believed that claims 11 and 30 are patentable over the cited references. Moreover, as previously explained with respect to claim 1, it also would not have been obvious to combine the cited references to arrive at Applicant's recitations in claims 11 and 30.

Claims 11 and 13-17 have been amended to improve readability thereof. At least by virtue of their dependency from claim 11, it is believed that claims 13-18 are patentable over the cited references.

Claims 30, 32 and 34-37 have been amended to improve readability thereof. At least by virtue of their dependency from claim 30, it is believed that claims 32 and 34-38 are patentable over the cited references.

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In view of the foregoing, Applicant respectfully submits that claims 1, 3-11, 13-19, 21-30, 32 and 34-38 are in condition for allowance. Reconsideration and withdrawal of the rejections are respectfully requested, and a timely Notice of Allowability is solicited. If there are any remaining issues that can be addressed over the telephone, the Examiner is encouraged to call Applicant's attorney at the number listed below.

Respectfully submitted,

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